**I know the definitions of the following Latin Root Words.**

1. Cyto - \_\_\_\_\_\_\_ 2. Scope - \_\_\_\_\_\_\_\_\_\_\_\_ 3. Bi - \_\_\_\_\_\_\_\_\_ 4. Pro - \_\_\_\_\_\_\_\_\_

5. Eu - \_\_\_\_\_\_\_\_\_\_ 6. Kary - \_\_\_\_\_\_\_\_\_\_ 7. Nucle - \_\_\_\_\_\_\_\_\_\_\_ 8. Mito - \_\_\_\_\_\_\_\_\_

9. Chondrion - \_\_\_\_\_\_\_\_\_\_\_ 10. Reticulum - \_\_\_\_\_\_\_\_ 11. Hyper - \_\_\_\_\_\_\_\_\_ 12. Hypo - \_\_\_\_\_\_\_\_\_\_

13. Tonic - \_\_\_\_\_\_\_\_\_\_\_\_ 14. Osmos - \_\_\_\_\_\_\_\_\_\_ 15. Endo \_\_\_\_\_\_\_\_\_ 16. Exo - \_\_\_\_\_\_\_\_\_\_

**I know the three parts of the cell theory.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I know the difference between a prokaryotic cell and a eukaryotic cell**

|  |  |  |
| --- | --- | --- |
| Prokaryotes Only | Both Prokaryotes and Eukaryotes | Eukaryotes Only |
| 27. | 28. | 29. |
| 30. | 31. | 32 |
| 33. |  | 34 |

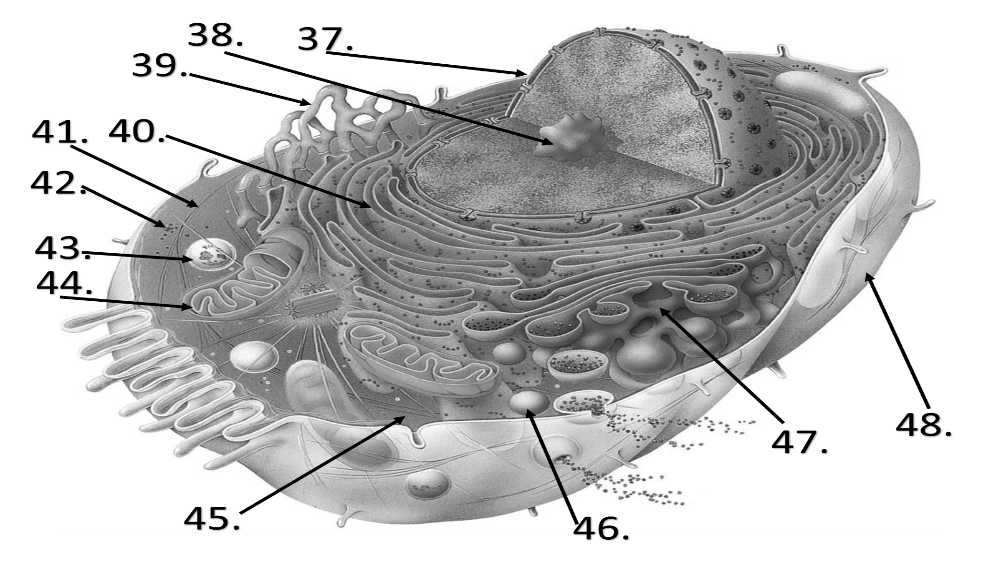
1. Pro + Kary = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Eu + Kary = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

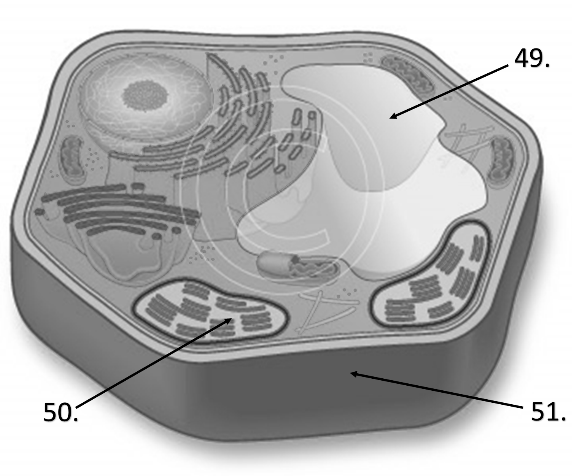
35. Draw a prokaryote cell:

36. Draw a eukaryote cell:

**I can identify an organelle and explain its function.**

|  |  |  |
| --- | --- | --- |
| # | **Identify** | **Function** |
| 37. |  |  |
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| 51. |  |  |

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52. What three organelles do plant cells have that animal cells do not have?  
1. 2. 3.

**I can identify the parts that make up the cellular membrane as well as their properties and functions.**

57. The cell membrane is semi-permeable. What does semi-permeable mean?

58. The majority of the cell membrane is made up of phospholipids. Draw a phospholipid and describe its properties.

59. Draw a picture showing how phospholipids arrange themselves when they are submerged in water?

61. What other things are found in a cell membrane?

**I know the components and properties of solutions.**

62. What are the two parts of a solution? \_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

63. How do we determine the concentration of a solution?

64. What is a concentration gradient?

65. Describe equilibrium.

66. When we compare solutions together we use three terms to describe their properties. Define the three terms.

1. Hypertonic –

2. Hypotonic –

3. Isotonic –

Compare the solutions and label them as either isotonic, hypertonic or hypotonic  
67. 68. 69.

90% H2O

10% Solute

40% H2O

60% Solute

63% H2O

37% Solute

90% H2O

10% Solute

50% H2O

50% Solute

50% H2O

50% Solute

**Students will be able to describe the passive and active modes of transport.**

71. What are the two solutions (fluids) that are involved in cell transport?  
 1. 2.

72. Describe the difference between active transport and passive transport.  
  
73. Fill in the blanks with the correct modes of transport

No Energy

Energy

Movement of solutes

Movement of solvent(water)

Into the Cell

Out of the cell

Movement of Solutes through protein channels

74. Solutes move from a \_\_\_\_\_\_\_\_\_ concentration to a \_\_\_\_\_\_\_\_\_\_ concentration until \_\_\_\_\_\_\_\_\_\_\_\_\_ is met.

75. Water moves from a \_\_\_\_\_\_\_\_\_\_\_ solution to a \_\_\_\_\_\_\_\_\_\_\_\_\_ solution until \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is met.

76. If you put a cell into a hypertonic solution, the water in the cell will \_\_\_\_\_\_\_\_\_\_\_\_ and the cell will \_\_\_\_\_\_\_\_\_\_\_\_.  
77. If you put a cell into a hypotonic solution, the water in the cell will \_\_\_\_\_\_\_\_\_\_\_\_\_ and the cell will \_\_\_\_\_\_\_\_\_\_\_.

78. If you put a cell into an isotonic solution, the water in the cell will \_\_\_\_\_\_\_\_\_\_\_\_\_ and the cell will \_\_\_\_\_\_\_\_\_\_\_.

79. Explain why it is dangerous for animal cells to be put into a hypotonic solution, but it is safe and even desirable for plants to be in a hypotonic solution.